

ABSTRACT OF THE DISCLOSURE

A motor drive system without any portion for directly detecting the rotor position, rotation speed and motor phase currents, capable of realizing a high-performance variable speed drive even at high carrier frequencies. When detecting a current from a DC power supply of an inverter for driving a motor, applied voltages and frequencies to the motor are controlled based on sampled values by sampling a current flowing as intermittent pulses in the vicinity of each power conduction time period.